

64.1 General Discussion

Manual M 36-64, the *Washington State Bridge Inspection Manual* (WSBIM), contains the official information on bridge condition inspection in Washington State. See the WSBIM for information concerning bridge condition inspection in the following areas.

64.2 Qualifications/Training of Inspection Personnel

The NBIS require formation of a bridge inspection organization staffed by qualified employees who meet the minimum qualifications outlined in Chapter 1.

64.3 Records and File Requirements

An accurate and current file for each bridge must be maintained by the owner agency as well as current, accurate information about bridge inspection personnel and the bridge inspection program. This is outlined in Chapters 1 and 3.

64.4 Inspection Types and Frequencies

In most cases, the NBIS require bridge inspections at least once every two years; however, some flexibility in determining inspection frequency is provided in Chapters 1 and 3.

64.5 Bridge Load Ratings

The NBIS require that each structure subject to inspection be rated for safe load-carrying capacity in accordance with Section 6 of AASHTO's *Manual for Condition Evaluation of Bridges 1994*. Chapter 5 of the WSBIM outlines load rating criteria.

64.6 Bridge Scour Analysis

FHWA requires a scour screening/analysis of all bridges over water. Listed below is the two-step process: Procedures are outlined in Chapter 5 of the WSBIM.

64.7 Quality Assurance Reviews

To ensure that compliance with the NBIS is maintained and that local bridge inspection programs are functioning effectively, the WSDOT Highways and Local Programs Bridge Engineer conducts annual Quality Assurance Reviews statewide. A sufficient number of reviews are conducted to ensure review of all agencies at least every three years. The reviewer works with agency personnel in evaluating the program's strengths and weaknesses and makes suggestions for correction of any program deficiencies. Those elements of a local agency inspection organization which will be closely scrutinized include:

- a. Certification of staff qualifications made by the public works director or Local Agency engineer; confirmation that the organization's bridges are being inspected by personnel who meet the qualifications outlined by the NBIS;
- b. Availability of the necessary equipment to perform required inspections;
- c. Completeness and organization of bridge files;
- d. Accurate and current Master Lists;
- e. Completion of accurate bridge load ratings for each structure subject to inspection;
- f. Thoroughness and completeness of inspections;
- g. Inspection timetable, i.e., timely completion of inspections at proper intervals as outlined by the NBIS.

Following this review, a close-out conference is held to discuss the report. Formal findings are prepared and are reviewed and signed by the Assistant Secretary for Highways and Local Programs. The findings are then sent to the local agency.

In addition to the Quality Assurance Review, the Federal Highway Administration coordinates with Highways and Local Programs engineers in conducting their periodic reviews of bridge inspection programs statewide. Both state and local agencies are visited, recommendations for improvements are made, and reports are filed. If a local agency program is out of compliance with the NBIS in a given area, a request to achieve compliance will be made. If the agency fails to do so, federal highway funds can be withheld until compliance is achieved.

64.8 Major Bridge Repair Reports

A Major Bridge Repair Report must be submitted to the Highways and Local Programs Bridge Engineer when a bridge has failed, or when an inspection results in temporary closure, or load posting pending repairs. The Highways and Local Programs office should also be notified by telephone of bridge failures resulting in death or serious injury within one working day. See Chapter 7 of the WSBIM for forms and procedures.

64.9 WSDOT and Other Inspection Services

Local agencies can participate in a program called the high cost bridge inspection program through the Highways and Local Programs Service Center.

Starting in 2000, routine inspections of small city bridges are the responsibility of the county the small city resides in. A small city has a population not exceeding 5,000 people.

The Highways and Local Programs Bridge Engineer will meet with local agency representatives, and will assist them in preparing a bridge inspection agreement. Inspection services available through WSDOT include: routine inspections for small counties, underwater inspections, fracture critical inspections, UBIT inspections, bridge load rating calculations, bridge scour analysis, and special inspections.

Local agencies can also arrange to have outside consultants provide some or all of their inspection services. Local agencies can contract independently with a qualified consultant or they can contract with the WSDOT Bridge Office to hire a consultant qualified to meet their needs. The Bridge Office maintains files on consultants qualified to provide bridge inspection services required by the NBIS.